

A New Species of *Spinolochus* from North America

(Hymenoptera: Ichneumonidae)

TOROLF R. TORGERSEN

*U.S. Forest Service, Pacific Northwest Forest and Range Experiment Station,
Forestry Sciences Laboratory, Juneau, Alaska*

Horstmann (1971) proposed the genus *Spinolochus* in his revision of the European Tersilochinae and included in it a single species, *S. laevifrons* (Holmgren) from northern Europe. A second species has appeared in collections from Alaska, indicating that the genus is Holarctic in distribution and represented by more than one species. The Alaskan species of *Spinolochus* is described below.

Two females of the new species were collected by L. C. Beckwith near Dry Gulch on the Kenai Peninsula southeast of Anchorage, Alaska. The specimens were obtained from windowpane flight traps operated from 1 June to 25 September 1969.

KEY TO FEMALES OF SPINOLOCHUS

1. Ovipositor in dorsal view parallel-sided for most of length, then narrowing abruptly to a subparallel-sided tip, in lateral view smoothly curved and tapering evenly to acute apex; median half of apical margin of clypeus weakly convex; first abdominal tergite in lateral view with slight depression above glymma *laevifrons* (Holmgren)
- Ovipositor in dorsal view parallel-sided to beyond midlength, gradually flaring, then converging smoothly to rounded apex (Fig. 1a), in lateral view with a raised preapical nodus (Fig. 1b); median half of apical margin of clypeus nearly truncate; first abdominal tergite without depression above glymma, smoothly convex or nearly straight above *distolatus* Torgersen, n. sp.

***Spinolochus distolatus* Torgersen, new species ♀**

(Fig. 1a, b)

MALE.—Unknown.

FEMALE.—Front wing 3.5–4.0 mm long, hyaline. Head broad, as wide across eyes as thorax just below tegulae; width across eyes 1.12–1.14× width at temples; profile of face from dorsal aspect elevated medially near antennal fossae. Antenna with 26–29 segments. Clypeus sparsely punctate basally and apically, the median half of its apical margin nearly truncate. Mesoscutum minutely corearous, sparsely punctate; notaulus short and indistinct, anteriorly with rugulose area. Prepectal carina extending dorsally, almost touching mesopleural margin before it curves briefly to nearly parallel it; wrinkling posterior to prepectus near its dorsal extension arranged in several clearly discernible ridges. Area below anterior end of

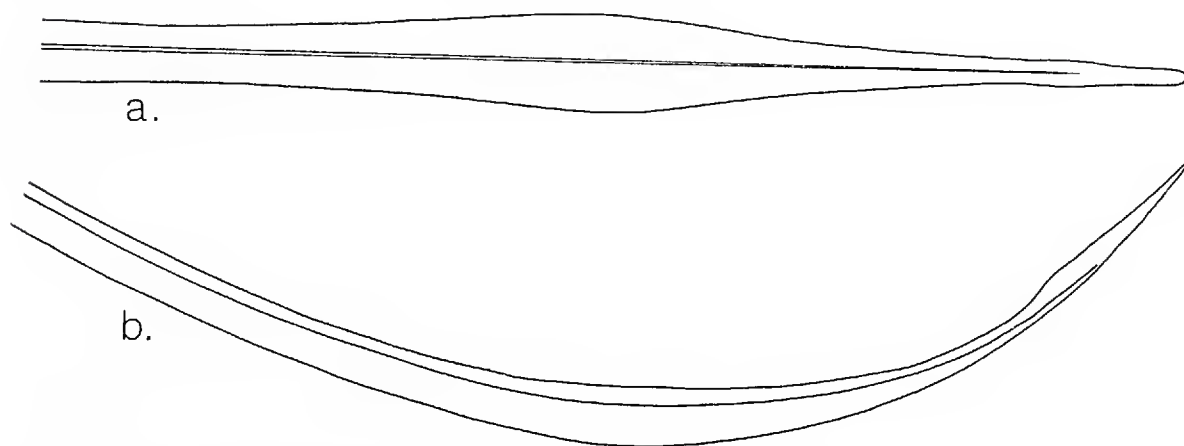


FIG. 1. *Spinolochus distolatus* n. sp.; a, dorsal aspect of ovipositor; b, lateral aspect of ovipositor.

sternaulus rugulose, merging ventrad into coarse punctations then into smooth but weakly mat sternal area. Anterodorsal corner of mesopleurum with rugae clearly arranged in several rows; one to several rugae present in area of mesopleural fovea. Propodeum with areola impressed, not sharply defined; longitudinal carinae represented anterior to petiolar area by irregular rugae. Apical transverse carina of propodeum well developed. First abdominal tergite in profile smoothly convex or nearly straight above glymma. Abdominal tergites 6 and 7 each with deep membraneous excision medially.

Black. Mandible yellow-brown, its teeth and base fuscous. Scape, pedicel, palps, tegula, legs, hind coxa, abdominal segments 2-9, and ovipositor fusco-testaceous. Basal 0.4-0.7 of hind coxa infusate, and hind tarsus a little paler than the rest of legs. Basal margins and/or median areas of abdominal segments weakly infusate or darker red.

In addition to the key characters given for separating *S. laevifrons* and *S. distolatus*, the following may also be helpful in differentiating the two. While the clypeus is nearly uniformly fuscous or black in *S. distolatus*, 0.5 to 0.8 of the apical portion of the clypeus in *S. laevifrons* may be yellow-brown to fusco-testaceous. The abdomen of *S. laevifrons* sometimes is quite dark compared with *S. distolatus*. Also, setation on the ovipositor sheath of *S. laevifrons* is rather sparse as compared with the better developed setation on *S. distolatus*.

Holotype female, DRY GULCH [KENAI PENN.], ALASKA, 25 August 1969, white spruce type, window flight trap, [L. C.] Beckwith, (U.S. National Museum). *Paratype female*, Dry Gulch, Alaska, 28 August 1969, white spruce type, window flight trap, Beckwith (Townes Coll., Ann Arbor, Mich.).

ACKNOWLEDGMENTS

The author expresses his thanks to Dr. Henry K. Townes of the American Entomological Institute, Ann Arbor, Michigan, for his assistance in preparing the above description.

LITERATURE CITED

- HORSTMANN, K. 1971. Revision der europäischen Tersilochinen (Hymenoptera, Ichneumonidae) Teil I. Veröff. Zool. Staatssaml. München, 15: 77-79.

SCIENTIFIC NOTE

Wing dimorphism in *Carabus maeander* (Coleoptera:Carabidae).—The hind wings of this species are usually strongly reduced but sometimes are large and functional (Lapouge, 1929. Wytsman's Genera Ins., 192: 1-747). However, Lindroth (1961. Opusc. Entomol. Suppl., 20: 1-200) did not record long winged forms for this species in Canada and Alaska.

I examined 49 specimens of this species taken in Quebec and I found four long winged specimens from the following places: Argenteuil Co., Ile Carillon, 16 August 1969 (1 male). Beauharnois Co., Baie-de-la-Faim, 27 August 1966 (1 male). Vaudreuil Co., Rigaud, 15 May 1966 and 1 May 1972 (2 males). These long winged forms are geographically restricted to the Montréal region.

Short winged specimens were taken from the following places: Abitibi Co., Amos, 10 June 1962, 13 May and 12 June 1968 (4); Ile Nepawa, 18 June 1968 (1); Lac D'Alembert, 27 May 1968 (4); Lac Figuery, 11 May 1968 (1); La Ferme, 19 May 1968 (1); Mancebourg, 13 June 1968 (4). Charlevoix-Est Co., Baie-Sainte-Catherine, 27 June 1969 (1); Port-au-Persil, 22 June 1969 (1); Port-au-Saumon, 5 July 1964 and 18 July 1965 (2); Sainte-Mathilde, 13 June 1965 (1). Iles-de-la-Madeleine Co., Grosse-Ile, 7 August 1970 (5); Ile-au-Loup, 5 August 1970 (1); Ile du Cap-aux-Meules, 31 July 1970 (1); Ile du Havre-Aubert, 2 August 1970 (4). Montmorency No. 1 Co., Saint-Joachim, 20 April 1968 and 5 June 1969 (2). Saguenay Co., Blanc-Sablon, 4 July 1971 (2); Brador, 7 June 1971 (1); Grandes-Bergeronnes, 31 July 1964 (1); Harrington, 1 July 1971 (4). Témiscamingue Co., Notre-Dame-des-Quinze, 21 May 1968 (1); Rollet, 12 and 24 May 1968 (3). Vaudreuil Co., Rigaud, 15 May 1971 (1).

The geographical distribution of the two forms presents a distinct pattern where concentration of the short winged form indicates an old centrum. Study of wing dimorphism in *Pterostichus anthracinus* Illiger (Lindroth, 1945. Die fennoskan-dischen Carabidae, 3: 1-911) has shown that the condition of the wings has a hereditary base: short winged forms are dominant, behaving in the simple Mendelian fashion. In consequence, long winged individuals are homozygotes. In a mixed population of a dimorphic species, selection functions in accordance with the completely different means of dispersal of the two forms. During stable periods, when the habitat is exposed to small changes, the short winged forms are advantaged and become more predominant. In unstable periods, the situation is reversed. When a dimorphic species invade new areas, as climate grows better, for instance in late-and post-glacial time, the long winged forms function as groups of pioneering parachutists. Long wing forms of dimorphic species do fly sometimes. Flight power has a positive selective importance in populations living in highly unstable habitats. Stability, restriction and isolation of environments and stenotopy help short winged forms. In fact, *Carabus maeander* lives in highly unstable habitats such as borders of rivers and wet agricultural lands, in the Montréal region.—ANDRÉ LAROCHELLE, Collège Bourget, C. P. 1000, Rigaud, Québec.